

# Notice of Allowability

Application No.

10/644,145

Examiner

Dang T. Nguyen

Applicant(s)

KANG ET AL.

Art Unit

2824

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11 July 2005.
2. ☒ The allowed claim(s) is/are 2 - 11, 20, 21, 23 - 31, and 33 - 41.
3. ☒ The drawings filed on 20 August 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All b) ☐ Some\* c) ☐ None of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☒ Other Search history.



RICHARD ELMS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800

***Response to Amendment***

1. This office action is in response to applicant's amendment received on 7/11/05. Claims 2, 3, 7, 10, 11, 20, 24, and 30 have been amended. Claims 1, 12-19, 22, and 32 have been canceled. Claims 34 – 41 have been added. Claims 2 – 11, 20, 21, 23 – 31, and 33 - 41 are pending on this application. Claims 3, 7, 20, 24 and 30 are independent claims.

***EXAMINER'S AMENDMENT***

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Frank Chau on August 16, 2005.

The application has been amended as follows:

Claim 3, line 11 changes "connected" To - -connected directly- -

Claim 3, line 13 changes "upon determination " To - -upon indication- -

***Allowable Subject Matter***

3. Claims 2 – 11, 20, 21, 23 – 31, and 33 - 41 are allowed.
4. The following is an examiner's statement of reasons for allowance:

**With respect to claim 3**, in addition to other elements in the respective claims, the prior art of record fails to teach or suggest “a precharge circuit connected directly to the search line pair for discharging each line of the search line pair to ground upon indication that at least one of the memory cells connected thereto are defective”

**With respect to claims 7, 24, and 30**, the primary reason for indication of allowable subject matter is that the prior art fails to teach or suggest “redundant TCAM cells and a switching circuit for switching at least a plurality of connections of TCAM cells determined to be defective to corresponding connections of the redundant TCAM cells”.

**With respect to claim 20**, the primary reason for indication of allowable subject matter is that the prior art fails to teach or suggest “a main search line driver for driving data signals to a plurality of search line pairs and at least one redundant search line driver for replacing the main search line driver upon determination that at least one of the memory cells connected to a corresponding search line pair are defective”.

Dependent claims 2, 4 – 6, 8 – 19, 21 – 23, 25 – 29, and 31 – 41 are allowed based on independent claims above.

5. The prior art made of record and considered pertinent to the applicant's disclosure does not teach or suggest the claimed limitations. Foss and Batson et al., taken individually or in combination, do not teach the claimed invention of precharge circuit connected directly to the search line pair and indicate one of memory cells are defective, in combination with other limitations.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Prior art***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Foss et al.	Patent No.: US 6,888,730 B2	Date of Patent: May 3, 2005
Batson et al.	Pub. No.: US 2002/0067632 A1	Pub. Date: Jun. 6, 2002

***Contact Information***

8. Any inquiry concerning this communication from the examiner should be directed to Dang Nguyen, who can be reached by telephone at (571) 272-1955. Normal contact times are M-F, 8:00 AM - 4:30 PM.

Upon an unsuccessful attempt to contact the examiner, the examiner's supervisor, Richard Elms, may be reached at (571) 272-1869.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist, whose telephone number is (703) 305-3900. The faxed phone number for organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the Status of an application may be obtained from the

patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or [EBC@uspto.gov](mailto:EBC@uspto.gov).

Dang Nguyen 8/17/2005